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Professor Joshua Lederberg
Department of Genetics
University of Wisconsin

Dear Professor Lederberg,

Thank you very much for your letter and the strains. The strain WG 16 was not among the strains, but instead of that there was one with the label WG 17(W 1633).

As to the examination of your strains we have got the following preliminary results:

W 3001 can not be O-grouped because of autoagglutinability. The strain is motile but does not agglutinate in any of the established coli H-sera 1-40. We therefore have produced an H-serum with this strain and H-agglutinations in this serum are perfectly allright.

WG3 related to O-group 8 and O-group 93, immotile.

WG4 belongs to O-group 25, immotile.

WG92 does not belong to any of the known O-groups; H-antigen is not H1-H40. Biochemically the strain is not typical coli as it is citrate positive.

WG28, spontaneously agglutinable. Grows but very poorly. H-antigen related to H 19.

WG28A is strongly related to O-groups 133 and 19, immotile.

WG33 belongs to O-group 21. Hantigen 4.

Wg37 belongs to O-group 4, H-antigen 5.

WG39 also belongs to O4 and H5, reacts biochemically as WG37.

WG40 belongs to O-group 7, immotile.

WG43 belongs to O-group 21, immotile.

WG46 related to O76; H7.

WG47 is spontaneously agglutinable. H-antigen does not belong to any of the known H-antigens.

WG48 belongs to O81, H-antigen 27.

WG51 autoagglutinable, immotile.

WG56 O26:B6.

WG57 not O55:B5, belongs to O25, and has H-antigen 12, bioche-

mically as the teststrain for O-group 25.

WG15 belongs to O86,H-antigen 12.
WG17 belongs to O41,immotile.
WG24 belongs to O4o,H13
WG26 belongs to O1,H12.

The strains 52,53,54,and 55 have given us some trobles.WG 52 gives reactions identical with those of the teststrain for O-group 18,H-antigen14.
WG54 gives reactions similar to the teststrain for O-group 21.
WG 53 is a mixture of 1)O18,biochemically as WG52,2)O2o,immotile, biochemically as teststrain O2o and 3) a culture whch is biochemically like teststrain 02o,but does either agglutinate in any of our O-sera nor is it spontaneously agglutinable,immotile as 02o.

WG55 is a mixture of 1)O21,biochemically as the teststrain,immotile and 2)O25,biochemically as the teststrain,H-antigen 12.

We have twice subcultured from your original agar stab culture both times with the same result.

I f we have understood you right the next step will be to choose some strains which contain known O and H antigens,but are mutually different as to these antigens and to their biochemical behaviour and then check them for their K-antigens.As the number of different K antigens in the coli group seems to be very high and as we for the moment only have established 79 K-numbers it probably will turn out that new K-sera will have to be produced with a great many of these strains.

You suggested in one of your earlier letters that we should get in contact with Dr.Heymann.Some weeks ago we called on Dr Heymann and we really had a most pleasant meating and both we and the Heymann family were most interested in some sort of coordination of our housing and nursing problems during our stay in Madison.

Our dissertation papers have now been accepted for justification, which means that the public justification procedure will take place on September 27 and October 2 respectively and we leave Copenhagen October 9.I feel that we will get some rather hectic days before we leave.

With kind regards

Yours

Ida and Frits Orskov